

REMARKS

Applicant respectfully requests reconsideration of this application and reconsideration of the Office Action dated January 30, 2001 (Paper No. 17). Upon entry of this Amendment, claims 1-15 will remain pending in this application. No new matter is incorporated by this Amendment.

Claims 1-15 are rejected under 35 USC § 112, first paragraph, as allegedly containing new matter.

The Office Action asserts that the phrase "and has physical characteristics similar to those of CFC 113 and HCDC 141b" in claim 1 is not supported by the specification. Applicant respectfully traverses this rejection.

Pages 1-3 of the instant specification discusses problems associated with various compounds used as dewetting agents. At page 1, lines 9-20, it is asserted that while CFC 113 and HCDC 141b have been used in the past and were effective, the use of these compounds has already been banned or soon will be banned. Continuing on page 1, line 21 the instant specification discusses various other candidate compounds for replacing CFC 113 and HCDC 141b that have been shown to have similar properties to CFC 113 and HCDC 141b. However these compounds also show problems as dewetting agents. See page 2, lines 1-12. The goal of the instant invention is a dewetting agent that overcomes the aforementioned problems. One of skill in the art, upon reading the specification, would recognize a composition that had properties similar to CFC 113 and HCDC 141b yet did not have the problems associated with the compounds shown in the Table on page 2 of the instant specification. Therefore, Applicant

respectfully submits that the specification has support for the questioned limitation and the claims do not contain new matter. Reconsideration and withdrawal are respectfully requested.

Claims 1-15 are rejected under 35 USC § 112, second paragraph, as being indefinite.

The Office Action asserts that an "-OH" group is missing from the formula recited in claim

1. Claim 1 has been amended inserting "-OH" at the proper location.

The Office Action further asserts that the terminology "similar" in claim 1 is unclear.

Applicant respectfully traverses this point.

The Table on page 2 of the specification recites a list of compounds that have properties that are similar to CFC 113 and HCDC 141b, this defines this limitation. Applicant respectfully submits that this table demonstrates what is intended by the terminology "similar". The compounds listed in the Table on page 2 are similar to CFC 113 and HCDC 141b because they have similar boiling points, surface tensions at 25° C and relative densities at 20° C. The claimed composition also has these same properties. Applicant respectfully submits that one of skill in the art in reading the specification would readily understand what is intended by the terminology "similar" in the context of the claimed invention. Reconsideration and withdrawal are respectfully requested.

Claims 1-6 and 9-15 are rejected under 35 U.S.C. 103(a) as obvious based on the Zisman Patent. (U.S. Pat. No. 3,957,672). Applicant respectfully traverses.

The Office Action states that Zisman teaches that a fluorinated polyether provides surface activity. The Examiner asserts that such a polyether may also serve as a solvent for the

fluoroalcohol. The Examiner thus concludes, the claimed invention does not exclude the fluorinated polyether of Zisman and that Zisman meets all the claim elements

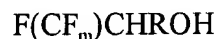
Applicant respectfully submits that Zisman neither teaches nor fairly suggests the claimed invention. The claimed invention excludes polyfluorinated ethers. The Office Action concedes that Zisman does not teach a composition that does not exhibit a flash point under standard determination conditions. This is because the Zisman reference discloses a dewetting agent based on a polyfluorinated ether.

Applicant's specification at page 3, line 5-7 states "...alkanes and ethers, they exhibit a flash point, which presents a safety problem for dewetting plants." Therefore, Zisman is teaching away from a composition as claimed. Furthermore, claim 1 requires that the composition does not exhibit a flash point under standard determination conditions. Polyfluorinated ethers exhibit a flash point and, as a result, can not be considered to be encompassed by the claimed invention.

The Examiner asserts the that the polyether disclosed by Zisman may also serve as a solvent for the fluoroalcohol. However, Applicant respectfully submits that this reasoning is erroneous as the polyether and fluoroalcohol are just as, or more likely to be immiscible. There is nothing of record which shows that the polyether of Zisman can act as a solvent for the fluoroalcohol. Applicant also wishes to point out that Zisman is mainly concerned with removing organic liquids from surfaces. See column 2, lines 1-15. By way of contrast, Applicant's invention is directed toward removing water. Therefore, one of ordinary skill in the art would not be motivated to use the teachings of Zisman for producing a water dewetting agent. Zisman describes a composition for removing organic liquids from surfaces. In the Office Action, the Examiner relies on Zisman's general teaching of the possible inclusion of an alcohol. Specifically,

Zisman, at column 1, lines 52-57, discloses that the fluorinated polyether may be combined with a fluoroalcohol and:

Fluoroalcohol solutes suitable for the OPFP-n compositions are perfluoroalcohols of the formula



wherein R is a member of the group consisting of hydrogen and perfluoroalkyl radicals having from 1 to 11 carbon atoms and wherein m is an integer from 1 to 11...

See Zisman column 3, line 10 at seq.

Applicant respectfully submits that these broad, general teachings in Zisman fail to render *prima facie* obvious Applicant's more specifically claimed composition.

At best, Zisman generically discloses a composition which may or may not include a genus of alcohols that generically encompasses the more narrow alcohol genus recited in Applicant's claims.¹ Even if a claimed species or genus is broadly encompassed by a prior art genus, however, this fact alone is not sufficient to establish a *prima facie* case of obviousness. *In re Baird*, 16 F.3d 380, 382, 29 U.S.P.Q. 2d 1550, 1552 (Fed. Cir. 1994).

The Federal Circuit's decision in *Baird* prompted the U.S. PTO to issue guidelines to assist examiners in properly applying 35 U.S.C. § 103 in a genus/sub-genus/species situation. These guidelines are set forth in MPEP § 2144.08. This section clearly illustrates the required analysis to be applied by U.S. PTO examiners in determining whether a generic prior art disclosure renders *prima facie* obvious a claimed sub-genus or species. Proper application of the

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While Applicants do not admit or necessarily agree that Zisman et al generically encompasses the presently claimed invention, for purposes of the arguments that follow, Applicants will assume *arguendo* that the disclosure in Zisman et al. generically encompasses the claimed alcohol.

guidelines in this case compels a finding that Applicant's claimed invention is not rendered obvious by Zisman.

According to the guidelines, after considering the traditional *Graham v. John Deere* factors, one must consider whether the skilled artisan would have been motivated to select the claimed sub-genus or species. In this case, Applicant's claim 1 requires that the composition must contain a polyfluorinated alcohol having a specifically claimed formula.

As a first step in the guideline analysis, one must consider the size of the genus disclosed in the reference and determine whether the reference inherently discloses the claimed combination. Zisman generically discloses a composition which may or may not include an alcohol and lists numerous possible alcohols having widely varying chemical formulas which may be used. The ingredients of the composition of Zisman (which may or may not contain an alcohol) can be combined in an infinite number of combinations and percentages. Accordingly, the genus disclosed by Zisman is extremely broad and not so small that Applicant's polyfluorinated alcohol is inherently disclosed.

The next step in the Baird analysis requires a determination of whether express teachings in the reference would have motivated selection of Applicants' claimed composition. Again, the answer to this question is no. In addition to the broad, generic teachings in Zisman as described above, Zisman's main focus is to develop a composition for removing organic liquids. Nothing in Zisman would motivate a person of ordinary skill in the art toward using a composition which has the ingredients claimed by Applicant and does not exhibit a flash point under standard determination conditions. Notably, Zisman expressly teaches away from using the polyethers claimed by Applicant because the polyethers of Zisman exhibit a flash point. Thus, no express

teachings in the Zisman patent would have motivated selection of Applicants' specifically claimed composition ingredient.

The guidelines also require consideration of whether the reference teaches structural similarity between the disclosed optimum or preferred prior art embodiments and the claimed sub-genus. As described above, the specific ingredient used by Zisman differs significantly from Applicant's claimed composition. The polyether in Zisman exhibits a flash point which is explicitly excluded by Applicant's claim. Nothing in Zisman discloses or suggests that his composition is structurally similar to Applicant's very different composition.

The final analytical step requires consideration of whether any other teachings in the reference support selection of the claimed sub-genus. Other than Zisman's broad, generic teachings, nothing in this document is related to Applicant's specifically claimed sub-genus. Accordingly broad, generic teachings alone are not sufficient to establish *prima facie* obviousness. See MPEP § 2144.08.

In view of the foregoing, Applicant respectfully submits that the analysis, following the U.S. PTO guidelines, compel a determination that Zisman fails to render the claims *prima facie* obvious. Reconsideration and withdrawal are respectfully requested.

Claims 1-3 and 7-12 are rejected under 35 U.S.C. 103(a) as obvious based on Zisman combined with the Bil patent (U.S. Pat. No. 5,514,301). Applicant respectfully traverse.

Applicant submits that the insufficiency of Zisman is described above. Furthermore, Bil does not supply that which Zisman fails to teach. Therefore, the combination of the prior art fails to teach or fairly suggest the claimed invention. Applicant respectfully submits that the above

remarks obviate the outstanding rejection. Reconsideration and withdrawal are respectfully requested.

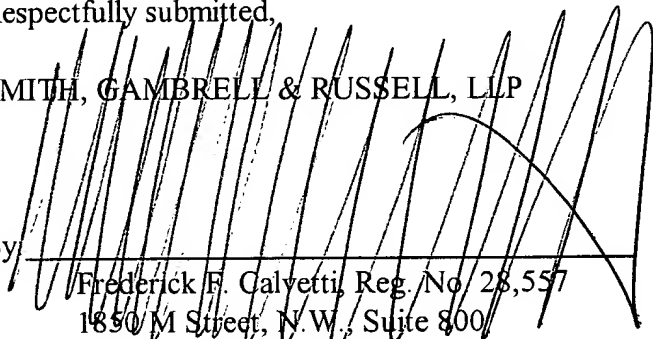
Applicant respectfully submits that the above remarks obviate the outstanding rejections in this case, thereby placing the application in condition for immediate allowance. Allowance of this application is earnestly solicited.

If any fees are due in connection with the filing of this Amendment, such as fees under 37 C.F.R. §§ 1.16 or 1.17, please charge the fees to our Deposit Account No. 02-4300; Order No. 033808.009. If an extension of time under 37 C.F.R. § 1.136 is necessary that is not accounted for in the papers filed herewith, such an extension is requested. The extension fee also should be charged to Deposit Account No. 02-4300; Order No. 033808.009.

Respectfully submitted,

SMITH, GAMBRELL & RUSSELL, LLP

By

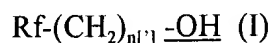


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FFC/PRD/BLN

MARKED-UP COPY OF THE PREVIOUS CLAIMS

1. (Four Times Amended) A [D]dewetting composition, consisting essentially of a solution of at least one surface-active agent in a mixture of at least one fluorinated solvent and of at least one water-immiscible polyfluorinated alcohol of formula:



in which n is equal to 1 or 2 and Rf represents a linear or branched perfluoroalkyl radical containing from 4 to 8 carbon atoms,

wherein said composition does not exhibit a flash point under standard determination conditions (ASTM standard D 3828) and has physical characteristics similar to those of CFC 113 and HCFC 141b.

2. (Twice Amended) The [C]composition according to Claim 1, wherein the composition contains at least one alcohol of formula (I) in which n is equal to 2.

3. (Twice Amended) The [C]composition according to Claim 1, wherein the alcohol of formula (I) is tridecafluorooctanol ($\text{C}_6\text{F}_{13}\text{CH}_2\text{CH}_2\text{OH}$).

4. (Three Times Amended) The [C]composition according to Claim 1, wherein the fluorinated solvent has a normal boiling point of between 20 and 100°C.

5. (Twice Amended) The [C]composition according to Claim 4, wherein the fluorinated solvent is a saturated or unsaturated fluorinated hydrocarbon containing from 3 to 6 carbon atoms.

6. (Three Times Amended) The [C]composition according to Claim 5, wherein the fluorinated hydrocarbon is selected from 1,1,1,3,3-pentafluorobutane, 1,1,1,2,2,4,4-heptafluorobutane, 1,1,1,2,3,4,4,5,5,5-decafluoropentane, 1,1,1,2,2,3,3,4,4-nonafluorohexane, 1H-perfluorohexane, n-perfluorohexane, (perfluorobutyl) ethylene and perfluoro (methylmorpholine).

7. (Three Times Amended) The [C]composition according to Claim 1, wherein the surface-active agent is a cationic surface-active agent obtained by reaction of a mono- or dialkyl phosphoric acid of formula:



in which p is a number ranging from 1 to 2 and R denotes a linear or branched alkyl radical containing from 1 to 18 carbon atoms, with a quaternary ammonium chloride of formula:



in which R' and R'', which are identical or different, each represent a hydrogen atom or an alkyl or hydroxyalkyl radical containing 1 to 4 carbon atoms, and a fluorinated amine of formula:



in which R_f represents a linear perfluoroalkyl radical containing from 2 to 20 carbon atoms, X represents a divalent bridge and the symbols R^1 and R^2 , which are identical or different, each represent a hydrogen atom or an alkyl or hydroxyalkyl radical containing 1 to 4 carbon atoms.

8. (Twice Amended) The [C]composition according to Claim 7, wherein R is a butyl, hexyl, 2-ethylhexyl, octyl or tridecyl radical, R' is a dodecyl or actadecyl radical, R" is a methyl radical, X is a -CH₂CH₂SO₂NHCH₂CH₂CH₂- or -C₂H₄CONHCH₂CH₂CH₂- bridge and R¹ and R² are methyl radicals.

9. (Twice Amended) The [C]composition according to Claim 1, wherein the content of polyfluorinated alcohol(s) is between 0.1 and 30% by weight.

10. (Twice Amended) The [C]composition according to Claim 1, wherein the content of surface-active agent(s) is between 0.01 and 0.5% by weight.

11. (Three Times Amended) The [C]composition according to Claim 1, wherein said composition is in the form of a concentrate containing up to 30% by weight of surface-active agent(s).

12. (Twice Amended) The [M]method for dewetting of solid surfaces comprising treating a solid surface with the composition of claim 1.

13. (Three Times Amended) The [C]composition according to Claim 4, wherein the boiling point of the fluorinated solvent is between 30 and 75°C.

14. (Amended) The [C]composition according to Claim 9, wherein the content of polyfluorinated alcohol(s) is between 0.5 and 5%.

15. (Amended) The [C]composition according to Claim 10, wherein the content of a surface-active agent(s) is between 0.04 and 0.2%.